

## ABSTRACT OF THE DISCLOSURE

A closed-loop STTD system extended from an open-loop STTD system adopting four antennas transmission diversity technique and its signal transmitting method are disclosed. The signal transmitting method in a closed-loop space-time transmit diversity (STTD) system having a plurality of transmission antennas, includes: space-time coding symbols to be transmitted; classifying the coded symbols to certain groups; and multiplying different weight values to each transmission symbol group and transmitting them.